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ABSTRACT

The purpose of this paper is to critically raise some questions as to whether measurement can provide us with a universally applicable set of criteria for making value judgments in the social sciences. Stated are assumptions that provide the framework of current standardized testing. Questions are raised as to the efficacy of current standardized testing in the social sciences because of the one-dimensional aspect of measurement. Four assumptions about education, experience, reality, and value formation are identified to provide, hopefully, a fuller reference point for social science educators when viewing current standardized measurement practices within the social sciences. The central theme of the paper suggests that, if these four assumptions hold true, they greatly limit the possibility of measurement providing a universally applicable set of criteria for making value judgments in the social sciences. (Author)

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REEXAMINING THE NOTION OF THE UNIVERSALITY OF EDUCATIONAL MEASUREMENT

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Paper presented at the Annual Meeting of the National Council
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The purpose of this paper was to critically raise some questions as to whether measurement can provide us with a universally applicable set of criteria for making value judgments in the social sciences. Stated were assumptions that provide the framework of current standardized testing. Questions were raised as to the efficacy of current standardized testing in the social sciences because of the one-dimensional aspect of measurement. Four assumptions about education, experience, reality, and value formation are identified to provide, hopefully, a fuller reference point for social science educators when viewing current standardized measurement practices within the social science:

(1) that there are two kinds of existence and two kinds of experience and that current measurement does not encompass the full range of existence and experience.

(2) that human action involves decision-making processes stemming from the total experience of an individual and that these predispositions to act do not necessarily stem from learnings within a discipline, but stem from the values of individuals which have greater emotive effect.

(3) that though a society may agree on universal goals and also agree upon the approach to the instruction necessary to bring about the desired goal, that there is no assurance of the fulfillment of the goal.

(4) that implied in the process of education is a certain kind of relation--triadic (teacher, student, subject) that must be held constant in both time and location for universal criteria to be valid in measurement.

The central theme of the paper suggested that, if these four assumptions hold true, they greatly limit the possibility of measurement providing a universally applicable set of criteria for making value judgments in the social sciences.

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Reexamining the Notion of the Universality of Educational Measurement

by

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The organizers of this symposium have given me the task of examining the notion of whether measurement can provide us with a universally applicable set of criteria for making value judgments in the social sciences. Such a task offers me greater opportunities for failure than for success. Therefore, before I venture into some notions about what I feel are very real limitations present in measurement for providing the social science criteria for making value judgments, it seems necessary to examine current assumptions about standardizing measurement and raise possible questions as to their legitimacy for the social sciences. Current standardized testing in the disciplines appears to rest on three assumptions: First, that there is a set of universal experiences for a given discipline; secondly, that all who experience this discipline will have experienced what is universal for that discipline; and thirdly, that in test development, the universals for the discipline have been correctly sampled.

It is my contention that these assumptions are highly questionable for the social sciences for they are not all inclusive of the social science reality. It is not necessary to argue that in standardized testing that such assumptions cannot be held, it is that these assumptions belong to a particular theory of learning and a particular theory of reality more appropriate to behaviorists and physical science, than to social scientists and social science. Behavior can be viewed as a function of stimulation

and fixed by reinforcement, but it can also be viewed as a function of interactive processes, cultural processes, phenomenological processes, etc. However, current standardized testing fits more appropriately with behavioral notions of learning. Paraphrasing Thorndike's dictum that if a thing exists, it can be measured illustrates the point behind standardized measurement and behavioral theory.

I am of the opinion that the development of universal values within the social sciences and the measurement of these values may not be appropriate to behavioral processes or current measurement techniques. It is here that I wish to offer certain assumptions that, if they do prevail, limit current testing inferences within the social sciences. The following set of assumptions provide a reference and perspective from which to view evaluation.

(1) that there are two kinds of existence and two kinds of experience and that current measurement does not encompass the full range of existence and experience.

(2) that human action involves decision-making processes stemming from the total experience of an individual and that these predispositions to act do not necessarily stem from learnings within a discipline, but stem from the values of individuals which have greater emotive effect.

(3) that though a society may agree on universal goals and also agree upon the approach to the instruction necessary to bring about the desired goal, that there is no assurence of the fulfillment of the goal.

(4) that implied in the process of education is a certain kind of relation--triadic (teacher, student, subject) that must be held constant in both time and location for universal criteria to be valid in measurement.[1]

Under each assumption, it is my intention to give some brief consideration. It is hoped that this approach will stimulate some discussion and clarify somewhat my ideas.

Assumption I: Two kinds of existence, two kinds of experience

Immediately let me state that I am not a dualist, my experience is quite pragmatic and my notions come from the observation of an empirical tradition. However, I believe this tradition has been viewed in a one-dimensional fashion by educators and particularly by test developers. Things exist in two fashions: (1) physical, and (2) non-physical. Experience may also be viewed in two fashions: (1) polarized and (2) non-polarized. Distinctions in existence and experience have never been considered in examinations, and thus, what may be inferred regarding these from test results [redacted] questionable.

Existence in physical sense constitutes all in the universe that can be defined in terms of physical criteria like temperature, power, etc. Existence in the non-physical sense involves the qualities of the mind, the intersubjectivity of individuals that develop in ever-changing social relationships. Here there are no agreed criteria constant in the relationship. What is a healthy relationship or a healthy state of mind? Is it the absence of negative social and mental conflicts? Some would agree, and an equally large sum would disagree.

Within the physical, Thorndike's notion is valid. But in the non-physical, what real properties exist in the individual that are universal? John Locke noted only the appetite. In education, philosophers in the spirit of Dewey view education as social in nature. Universals, ends,

goals, are not valued so much as end products, but as principles implicit in different manners of proceeding or producing. Even that which is natural to man as basic in his drive make up such as sex takes on different coloration, different value. What is the proper predisposition toward sex--both as an individual and social experiences and/or expression? A clinical observation might suggest that the act is a release of tension. Historical Christian observation might suggest that the act is morally questionable, but necessary for the procreation of the race. For naturalists, the activity is the joy. For Hemingway, the observation is classic--the "earth moved".

Polarized experiences engage at once the individual in such a manner that no future or functional purpose or outcome is anticipated apart from the immediate on-going nature of the experience. Non-polarized experiences are those experiences individuals undergo as necessary for future kinds of experiences. The reading experience (non-polarized) allows persons to experience symbolically other experiences, which in the absence of the reading experience, further symbolic experience is greatly reduced.

In measurement, one can measure symbolic non-polarized experiences. Polarized experiences are difficult to measure. The intense social experience of play, or aesthetic becomes difficult. Measure one's feelings and appreciation of Shakespeare or of Picasso. If I am emotive or if I sit there absolutely quiet, passive, what does this really mean? Which response indicates greater depth of feeling? To be sure we know what a work of Picasso or Shakespeare might be, such a work is always

referential. But to decide the value of that work in terms of beauty for each person--that, I am afraid, lies within each individual's subjectivity.

There is no supreme court to adjudicate amongst values; no criteria established. Moral choices are difficult. To suggest that there is a supreme court of social values takes us into quite arbitrary guidelines and enters directly into the political world, but in this manner, lacks true universality and rests with transitory power. For social values are locked within the individual and change constantly in relationships with others in a given situation. In short, values are not subject to development by disciplines. If my first assumption has any validity, then current testing and criteria building are too one-dimensional in the physical dimension to offer real service for establishing universal criteria of values for the social sciences which include aspects of the non-physical.

Assumption II: Human action involves decision-making processes stemming from total individual experience.

Much of what I wish to suggest under this assumption stems from my readings of William James. It is only recently that I have reintroduced myself to his observations.[2] James looks at human action and value from a phenomenological perspective. From this perspective James suggests that if mind is possessed by only a single idea, and that idea is an object connected with a native impulse, the impulse will immediately proceed to discharge. We perceive, for instance, that the door is open, we shut it; we perceive food, we reach for it and eat it. The case becomes more complicated where two thoughts come together in the mind

leading into different kinds of actions. Native impulse-hunger, object-food, thought-poison. Here a decision has to be made. James notes that the higher emotional tendency will quench the lower one. Given: hunger-food; poison-death. I choose hunger. James comes immediately to the point, "Fear arrests appetite, maternal love annuls fear, etc... and in the more subtile manifestations of the moral life, whenever an ideal stirring is suddenly quickened into intensity, it is as if the whole scale of values of our motives changed its equilibrium." (James)[3]

Centuries past educators and others have tried so to train the will for such a value and/or ideal, that upon more realistic observation showed that such practices were futile. Suggesting that we might develop more humane and sophisticated technology and more agreed upon universal values does not prove to me that we can really change the intentionality of persons, nor supply more quantitative and rational data that will influence decision making away from emotional tendency.

If individuals acquire their values, and decision-making processes from their total experience, then these predispositions toward values are not greatly subject to modifications from any discipline, and thus, if this assumption holds true, the establishment of universal value in measurement is questionable in the social sciences.

Assumption III: Ends are not assured in education, though agreement is reached as to the means and ends in the educational process.

In the Preamble to the Act of the Massachusetts General Court in 1647 requiring towns to provide for the education of their young

it is stated, "that learning may not be buried in the graves of our fathers in the Church and Commonwealth, the Lord assisting our endeavors." The Massachusetts Bay Colony had its sights set high. Learning was eagerly desired for the children of that time and was viewed not as an end in itself but rather valued as a means for allowing children to read the Bible thereby allowing man to meet God so that his eternal salvation would be assured.

Here was a society, furnishing the school objectives which were practical from a social and religious orientation. In Puritan theology the Bible was the source of all law, civil as well as religious. Consequently, the ability to read assumed social as well as religious and individual importance. The state required reading for expressed purposes. Thus the means and ends of education were given. However, certain opposites occurred. Massachusetts, with other New England colonies, soon led the new world into secular thought. Massachusetts' children grew into literate adults who read not only of Puritan religion, but of the secular tradition of English enlightenment, and, consequently, deistic thoughts soon were emanating from the Massachusetts Bay Colony. By the time of the Constitutional Convention it was assured that the constitution would include an amendment that would establish the first purely secular nation in principle in the Western World.

We might have been able to measure continually the ability of children to read from Massachusetts Bay Colony, and they might have known their New England Primer, and ecclesiastical laws, but a theocracy was nevertheless doomed. Thus, I feel that the establishment of universal values is at best a tenuous thing that when looked at historically becomes even more questionable.

Assumption IV: Education Implies a Triadic Relation: Teacher, Student, Subject.

Lee J. Cronbach in his address to the sixty-fifth annual convention of the American Psychological Association in 1957 observed that the correlational psychologist discovered long ago that no observed criterion is truly valid and that simultaneous consideration of many criteria is needed for satisfactory evaluation of performance.[4] Such a consideration leads one to hold that measurement can provide a valid set of criteria for evaluation as suspect. In education, where a triadic relation amongst teacher, student, and subject matter is implied, holding all constant is an impossible task but necessary for universal validity.

We might teach all students about UNESCO, however, the disposition toward UNESCO held by teachers throughout the country is not necessarily the same. Also, one's disposition toward institutional processes change with time. Location and time seem to be as equally important to the things learned, and somewhat influence the attitude toward these things, as do the cognition of the things learned. In an insightful article in the Kappan, September 1972, Joseph Junell commenting on the limits of social education states that the fact remains that in the realm of attitudes and values we find ourselves in a quicksand world where good or evil so often hinges on mere impulse, right or wrong on simple conviction, and truth or falsehood on the heart's desire. Commenting further Junell recognizes the inadequacy for judgments on this basis, but that we cannot escape them.[5]

Cognition relies heavily upon reason in the schools, I have no evidence that values are influenced by a methodology or subject matter of reason. If this were so, I should imagine that long ago John Dewey's intelligent inquiry would have greatly reduced the tensions over values through his primacy of consequences. The primary way of learning is through socialization. Socialization begins at birth and children tend to identify outward from the immediate family to the local situation and to ever increasing complex relations with others that affect him. Values that transcend the immediate and appeal mostly to an intellectual process tend to be external to children, tend to be meaningless to prepuberty children, and therefore are not crucial or decisive for the individual.

The creative dimension in life and in education lies in a given relationship, in a given situation, and a given time. This relationship begs for never more creative responses, and often borders on irrational processes; but the relationship also allows for renewel and innovative responses which is necessary in our culture. In summary, it is doubtful that measurement can provide us with a universally applicable set of criteria for making value judgments in the social sciences, because value formation comes through particular processes constantly modified. Beneficial measurement in values do not lead themselves readily to universal criteria, for relationships are not in the universal, but in the particular, and relationship appears to be crucial in value formation.

Summary

The purpose of this paper was to critically raise some questions as to whether measurement can provide us with a universally applicable set of criteria for making value judgments in the social sciences. Stated were assumptions that provide the framework of current standardized testing. Questions were raised as to the efficacy of current standardized testing in the social sciences because of the one-dimensional aspect of measurement. Four assumptions about education, experience, reality, and value formation were identified to provide, hopefully, a fuller reference point for social science educators when viewing current standardized measurement practices within the social science. The central theme of the paper suggests that, if these four assumptions hold true, they greatly limit the possibility of measurement providing a universally applicable set of criteria for making value judgments in the social sciences.

Notes:

1. G. H. Bantock. "Educational Research: A Criticism," Harvard Educational Review, XXXI (Summer, 1961) 264-280.
   Bantock clarifies concepts and methods between social and physical science.

   Jane Roland Martin. "Can There Be Universally Applicable Criteria of Good Teaching?" Harvard Educational Review XXXIII (Fall 1963) 484-491.
   Martin takes issue with the triadic formulations of Bantock and makes counter claims to that of Bantock.

   Joan Cooper. "Criteria for Successful Teaching: or An Apple for the Teacher," Philosophy of Education Society of Great Britian from the Proceedings of the Annual Conference (1966) 5-8.

2. William James. Talks to Teachers on Psychology: and to Students on Some of Life's Ideals. New York, Holt, 1915.

3. Ibid, pp. 173-174.

4. Lee J. Cronbach, "The Two Disciplines of Scientific Psychology," Presidential Address, Sixty-fifth Annual Convention of the American Psychological Association, 1957.

5. Joseph Junell, "The Limits of Social Education," Kappan, September 1972, pp. 12-15.